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The Impact of Correctional Population Reduction Strategies in West Virginia: Forecast Projections and Cost Savings Estimates for 2014-2024

Stephen M. Haas, Ph.D., ORSP Director
Douglas H. Spence, Ph.D., Research Analyst

Nationwide, state prison populations have increased by more than 400% over the past 30 years, growing from about 300,000 prisoners in 1977 to more than 1.5 million in 2013 (Glaze & Kaeble, 2013). This rapid growth has placed significant fiscal burdens on state governments which collectively spend more than $50 billion per year on corrections (Kycklehan, 2014). Consequently, many states are seeking to reduce correctional costs by pursuing alternatives to incarceration and seeking more cost-effective ways to house offenders.

For much of the 1970s and 80s, West Virginia was one of the few states that appeared to be immune to the national trend of rapidly expanding state prison populations. It had one of lowest rates of incarceration per capita in the country, and a small prison population that grew slowly (at an average annual rate of 2.5%) from about 1,237 prisoners in 1978 to 1,674 prisoners in 1992 (Carson & Mulako-Wangota, 2014). However, since 1992 the number of prisoners in West Virginia has grown at an average rate of 5.4% per year, reaching a total of 7,085 inmates by the end of 2012 (Bauer-Leffler & Haas, 2012). West Virginia's prison population growth rates have been among the fastest in the nation during the past 20 years. Based on these trends, the 2012 correctional population forecast projected that the state's correctional population would grow to more than 10,000 prisoners by the year 2022.

This rapid growth has generated considerable concern among state planners and policy-makers. To house the current prison population the state has already constructed three new correctional facilities during the past 10 years. At present, all WV Divisions of Corrections (DOC) facilities are operating at capacity, and another roughly 500 DOC inmates are currently being housed in the regional jail

Report Highlights...

This study examines the future growth of the WV correctional population, and presents population projections and cost estimates for two diversion scenarios.

The correctional population is projected to grow at a rate of 1.8% over the next 10 years, down from 4.1% based on 2012 projections.

Analysis reveals that the continued expansion of the state's prison population is driven primarily by the number of new admissions, particularly for nonviolent offenders and parole violators.

Simulation models demonstrate that between 7.5% and 20.1% of new prison admissions could conceivably be diverted to community supervision without jeopardizing public safety though modest changes in sentencing decisions.

Conservative estimates indicate that 7.5% of the prison population could be diverted to the community, saving the state nearly 3,000 bed-years and more than $120 million over a 10 year period.

Findings indicate that "front-end" processes and sentencing practices resulting in continued increases in prison commitments must be addressed to further reduce the state's prison population.

system while waiting for prison beds to become available.

As a result of the passage of the Justice Reinvestment Act in 2013 (also referred to as S.B. 371), the state of West Virginia is in the process of implementing a number of new initiatives intended to slow the rate of correctional population growth and reduce prison crowding (Grasso, 2013). These include efforts to improve the effectiveness of correctional rehabilitation programs, both in the prison and in the community, by adopting the use of offender risk and needs assessments and ensuring the implementation of evidence-based practices. In addition, the state has also taken steps to reduce the rate of reincarceration due to probation and parole violations by adopting more cost-effective sanctions for offenders who commit technical violations, and by reducing delays for offenders eligible for parole. A core principle of the justice reinvestment approach is that a significant proportion of the costs savings that accrue as result of reducing the size of the prison population will be reinvested in substance abuse treatment and other programs that address offenders' criminogenic needs. Thus, the success of these initiatives is expected to facilitate greater investment in strategies to further increase public safety and reduce recidivism.

There is already some tentative evidence that these changes have begun to have an effect on the growth of the prison population. Between 2012 and 2013, West Virginia's total year-end correctional population *decreased* for the first time in more than thirty years, falling from 7,085 inmates to 6,833, a decline of roughly 3.4%. This reduction was relatively modest, but it does point to the fact that some of the underlying processes which drive prison population growth in the state appear to have changed, and suggests that future prison population growth rates are likely to diverge from the 2012 forecast projections.

Analytic Approach for New Population Forecast

The present study generates new forecast projections which account for the impact of these recent efforts to reduce the prison population. These projections reveal that, due in part to policy changes and initiatives implemented in 2012 and 2013, the prison population in WV is expected to grow more slowly anticipated by the 2012 forecast projections. Yet, while the rate of prison population growth appears to have decreased, current projections still predict that the population will exceed 8,000 inmates by 2022.

With this in mind, this report expands on previous correctional population forecasts in West Virginia through additional analyses designed to identify subpopulations of incoming DOC commitments who could be safely housed in the community. Using measures of "offense severity" and "criminal history," this study seeks to identify the "overlap" in offenders supervised in custodial and community-based settings across the state. This approach relies on statistical methods that classify the proportion of the current prison population that is "less statistically serious" than the offenders presently serving time in state-administered day report centers (DRCs).

Two subpopulations of offenders committed to DOC in 2013 are identified based on a "more conservative" estimate (i.e., inmates that have a mean score lower than the mean for DRC supervised offenders on both offense severity and criminal history) and a "less conservative" estimate (i.e., inmates that have a criminal history score of medium or below on the LS/CMI). The results of these analyses are then used to generate alternative forecast projections based on scenarios in which these offenders were placed under community supervision rather than being sent to prison. This process yields 10-year correctional population and cost estimates based on the state's capacity to divert offenders away from prison are statistically "less serious" than offenders currently serving time in the community. Based on each of the two scenarios, the reduction in the forecasted prison population is coupled with potential cost-savings over a ten year period.

The results of these analyses underscore the importance of "front-end" or sentencing decisions on our state's prison population. *In order to further reduce the rate of prison population growth and sustain the progress that has already been made, changes in sentencing practices must occur.* Such changes should involve greater use of community alternatives for the supervision and treatment of nonviolent, high risk offenders as well as the expedited removal of low risk offenders from the system. Success in this regard will require greater differentiation of offenders through risk and needs assessment and for these differences to be reflected in judicial sentencing (i.e., evidence-based sentencing practices). It is hoped that this report will shed light on the "sorting" problem West Virginia currently faces, and identify ways to resolve this issue in order to further slow the growth of the prison population.

The following section provides a review of the specific "drivers" research has identified as significant contributors

Report Highlights...

Nationally, the number of prisoners housed in state prisons has grown by more than 400% over the past 30 years.

Research indicates that the expansion of state prison populations is largely driven by three trends:

(1) The use of incarceration to sanction a larger proportion of offenders, especially nonviolent offenders.

(2) Longer average prison stays for offenders sentenced to prison, coupled with reduced access to parole and other forms of early release.

(3) High rates of recidivism by offenders after release, and the frequent reincarceration of probation and parole violators.

These trends contribute to a "sorting problem" for West Virginia and other states, resulting in the over-reliance on custodial confinement over less costly and more effective community alternatives.

In addition, sorting problems can also affect the processes which determine which offenders receive rehabilitative treatment and the types of services they receive.

for the expansion of the prison population nationwide. We also describe the policy changes and initiatives that are being implemented in West Virginia to curb prison population growth. A detailed account of the methods to generate the forecast projections and conduct the additional analyses are also provided. The report concludes with a discussion of the implications of the findings for state policy-makers and planners, and offers several recommendations for achieving further reductions in the rate of prison population growth in West Virginia.

EXTANT RESEARCH ON STRATEGIES FOR REDUCING STATE PRISON POPULATIONS

The Causes of Prison Population Growth

There is a growing empirical literature that investigates the causes of prison population growth in the United States. This research points to three general processes that appear to account for much of the expansion of the US prison population over the past 30 years. These processes can be thought of as decision-points which provide opportunities for action and serve as targets for potential reforms designed to reduce the burden of corrections costs.

First, many studies suggest that one reason why prison populations are growing is because a larger proportion of offenders, especially those with nonviolent offenses, are being sent to prison than in the past (McLeod, 2011; Pfaff, 2011). Nonviolent offenders currently make up about 50% of the inmate population in state prisons and account for about 70% of new prison admissions in a given year (Carson, 2014). Furthermore, the Bureau of Justice Statistics reports that only about 10% of offenders who are sentenced to state prisons for nonviolent offenses have criminal histories that include a prior conviction for a violent crime (Durose & Mumola, 2004). Much of the rise in incarceration rates for nonviolent offenders can be attributed to the increasing use of prison as a sanction for drug offenders starting in the 1980s and 90s (McKenzie, 2001; Blumstein, 2011). While nonviolent drug offenders made up only 10% of the prison population in 1980, they now account for about 23% of prisoners nationwide (Schmidt, Warner & Gupta, 2010).

As a recent report by the Pew Foundation points out that the changing composition of state prison populations is indicative of the existence of a "sorting problem" (Pew Center for the States, 2011). The sorting problem arises when states fail to adequately distinguish between offenders who pose different levels of threat to the community and who have different risks of recidivating. By casting a broader net, and incarcerating larger numbers of less serious and less frequent lawbreakers, states not only increase the rate of prison population growth but also reduce the cost-effectiveness of their prisons. This is because a greater proportion of inmates are individuals who would likely not have committed new crimes if they had remained in the community. Furthermore, there also evidence that time in prison may increase the risk of recidivism for low level offenders. This is because incarceration places these

offenders in close social contact with more serious criminals and disrupts existing social supports structures which may discourage criminal activity, such as employment and relationships with family members (Cullen, Jonson & Nagin, 2011). Consequently, the Pew Foundation, Council for State Governments, and others, have argued that states can substantially reduce prison population growth by doing a better job of differentiating between high and low level offenders.

A second process that has been linked to correctional population growth concerns the length of time that offenders spend in prison. The Bureau of Justice Statistics reports that the average duration of a stay in prison has increased by about 38% in the past 20 years, rising from 21 months in 1993 to about 29 months in 2009 (Bonczar, 2011). These changes have had a particularly significant impact on corrections budgets because they have not only served to increase the total number of inmates housed in state prisons, but have also contributed to the "graying" of state prison populations and rapidly increasing inmate healthcare costs. Between 1999 and 2013, the number of state and federal prisoners who were 55 or older increased by 234%, compared to only a 9% increase in the number of inmates who were younger than 55 during this period (Beck, 2000). The National Institute of Corrections estimates that the healthcare costs for inmates who are 55 or older with chronic or terminal illnesses is currently two to three times that of other offenders (Anno, Graham, Lawrence, & Shanksy, 2004), and recent report from the Pew Foundation finds that there is a strong relationship between the average age of the inmate population within a given state and levels of spending on healthcare per offender (Pew, 2014).

The growing length of prison stays for offenders is another potential sign of the presence of sorting problems in state justice systems. During the 1980s and 90s, many states implemented policies, such as mandatory minimum sentences, truth-in-sentencing requirements and three-strikes laws which limited the ability of judges and parole boards to reduce the incarceration time for less serious or dangerous offenders (McLeod, 2011). Consequently, once offenders are sent to prison, it is now more difficult in many states to sort out those who exhibit good behavior and appear to pose less threat to the community.

Finally, a third process which has contributed to prison population growth concerns recidivism by offenders after release. Nationally, about 68% of inmates are arrested and about 50% are reincarcerated within three years of being released from prison (Durose, Cooper & Snyder, 2014). Recidivists currently account for about 30% of new admissions to state prisons (Carson, 2014). Moreover, states with higher recidivism tend to have faster rates of prison population growth (Blumstein & Beck, 2005). However, research indicates that, nationally, as many of 50% of offenders who are reincarcerated are jailed in response to technical violations of the terms of their probation or parole rather than for the commission of new crimes (Pew Center for the States, 2011: 13). Consequently, some researchers have argued that the adoption by states of longer supervision periods and more extensive parole and probation requirements for released prisoners may be contributing to prison population growth, by creating a "revolving door" which drives large numbers of offenders back into incarceration (Mauer 2002).

The growing proportion of released offenders who are reincarcerated nationwide due to technical violations can also be seen as indicative of the presence of potential

Report Highlights...

West Virginia has recently implemented several initiatives that are expected to have an impact on correctional population growth. These include:

(A) Reducing recidivism by increasing the investment in community-based substance abuse treatment.

(B) Requiring community supervision agencies to utilize risk and needs assessments to inform supervision practices.

(C) Ensuring the implementation of evidence-based practices with fidelity through performance and quality assurance processes.

(D) Establishing more cost-effective sanctions for punishing probation and parole violations.

(E) Streamlining correctional processes to reduce delays in parole eligibility.

sorting problems in state justice systems. *When states fail to adequately differentiate their responses to parole and probation violations they risk sending less serious offenders back to prison who might otherwise have remained in the community without committing new offenses.* This not only serves to increase correctional costs, but also eliminates the ability of reincarcerated offenders to pay taxes, child support, or victim restitution, thus depriving the community of these potential benefits. Research clearly indicates that rehabilitative treatment is more effective when in it is provided in a community setting (Andrews & Bonta, 2010: 359). For this reason, researchers have argued that is important to try to keep troublesome offenders in community-based treatment programs, even if they violate minor program rules, because these programs have the best chance of bringing about lasting changes in the offenders' behavior (Craddock, 2009).

Report Highlights...

Front-end sorting processes can be improved by providing judges with additional information about offenders' risk and needs prior to sentencing. This is sometimes referred to as "evidence-based sentencing."

Research shows that risk and needs information can improve the ability of judges to identify offenders who can be safely supervised in the community.

By reserving prison beds for the most serious offenders, states can reduce prison crowding and improve the cost-effectiveness of correctional treatment.

Virginia, Missouri and Pennsylvania are examples of states that have applied evidence-based sentencing strategies to divert less serious offenders into community supervision programs.

Reducing Prison Population Growth in West Virginia

On May 2nd, 2013, Governor Earl Ray Tomblin signed Senate Bill 371, also known as the Justice Reinvestment Act (JRA), into law in West Virginia. This legislation is designed to lower corrections spending by strengthening community supervision and increasing the level of investment in community-based treatment programs. It is hoped that these initiatives will reduce recidivism and decrease the state's reliance on incarceration as a means of sanctioning offenders. Furthermore, in order to ensure that reductions in correctional population can be sustained, the bill also provides a framework for reinvesting a proportion of future correctional cost savings into additional strategies designed to further decrease crime and recidivism.

In regards to community supervision, the JRA includes two major initiatives that are likely to impact prison population growth. First, the bill requires the statewide adoption of an actuarial risk and needs assessment tool (the LS/CMI) and requires supervision agencies (i.e., probation and parole) to use information about offenders' risk and needs when deciding how to allocate supervision and treatment resources. This initiative helps to facilitate the implementation of evidence-based practices in community supervision by encouraging supervision agencies to operate in accordance with the risk and needs principles (Andrews & Bonta, 2010). These principles assert, respectively, that greater treatment dosage to be provided to offenders with higher risk levels and that treatment should be targeted to address offenders' individual criminogenic needs.

Second, the JRA establishes more cost-effective sanctions for punishing probation and parole violators. Prior studies in West Virginia have illustrated that community supervision revocations account for between 15-50% of prison commitments per year in WV, and are an important driver of prison population growth in the state (Grasso 2013; Lester & Haas, 2006). These studies further concluded that same report also finds that more than half of revocations are for technical violation of the terms of supervision and not for the commission of new crimes. Thus, this legislation has the potential to reduce prison population growth by providing community supervision agencies with additional options for punishing less serious violations of probation and parole.

Another important emphasis for Justice *Reinvestment* is the provision of community-based treatment for offenders. Research indicates that rehabilitative treatment is much

more effective when it is provided in the community than in a residential setting (Andrews & Bonta, 2010), evidence indicates that most offenders under community supervision in West Virginia have significant criminogenic needs (Spence & Haas, 2014). The JRA seeks to increase the level of investment in community-based substance abuse treatment and implement several quality assurance processes designed to enhance treatment effectiveness.

Importance of Risk Assessment in Sentencing

Virginia provides a good example of a state employing this type of front-end strategy (Kleiman, Ostrom and Cheeseman, 2007). In 1994, the commonwealth of Virginia developed an offender risk assessment instrument that was designed to help judges identify low risk, nonviolent offenders so that they could be diverted from prison into alternative sanctions program. During an initial pilot period, the instrument was used to identify 555 candidates for alterative sanctions who would otherwise have been sent to prison. A subsequent independent investigation by the National Center for State Courts (NCSC) found that the instrument accurately predicted the likelihood of recidivism for these offenders and that judges believed that it improved their ability to identify candidates for diversion (Ostrom, Kleiman and Cheeseman, 2002). In addition, cost benefit analyses indicated that the diversion of these 555 offenders reduced correctional costs by more than $8 million. Based on the NCSC's recommendation, Virginia adopted the instrument for statewide use in 2003.

Missouri and Pennsylvania implemented similar types of programs (Hyatt, Bergstrom & Chanenson, 2011). Both states now make the results of actuarial recidivism risk assessments available prior to sentencing, and in Pennsylvania, there are also plans to link risk information to sentencing recommendations by making structural changes to the state's sentencing guidelines (Bergstrom & Mistick, 2010). These policies are intended to supplement the traditional focus on offenders' current offenses and criminal histories with more dynamic sources of information related to offenders' current risk and needs.

Finally, in addition to the JRA, there have also been changes to the state's parole procedures. The reforms are designed to streamline the parole application process and reduce unnecessary delays. These delays contributed to prison crowding because they prevented offenders who were eligible for parole from being released on time.

These recent initiatives in WV have the potential to considerably reduce the rate of prison population growth. However, *the potential of these initiatives are limited by the fact that they do not address the "front-end" processes by which offenders are sentenced to prison such as offender sentencing practices.* These processes are particularly important because they govern the flow of offenders into the prison system, and research indicates that once offenders spend time in prison, their odds of further involvement in the criminal justice system increase significantly (Pritikin, 2009). Thus, to control prison population growth, it is essential that states take steps to ensure that *sentencing processes* adequately differentiate between offenders based on their level of recidivism risk and threat to the community, and that less serious offenders are provided with alternative sanctions, whenever possible.

Put another way, this means that states should take steps to mitigate potential "sorting problems" that may arise in front-end processes or sentencing. One way to enhance the efficiency of front-end sorting processes is to provide judges with additional information about offenders' risk and needs. This can improve the capacity to differentiate among offenders and identify who can be safely supervised in the community and differentiate them from more dangerous offenders. Traditionally, judges have tended to rely on information about the severity of the offender's current offenses and the seriousness of their criminal history to make this distinction. This is based on the expectation that offenders who have committed more serious crimes and who have committed a larger number of crimes are more likely to reoffend and pose a greater danger to the community (Spohn 2009). However, *research indicates that one's ability to predict recidivism can be greatly improved by incorporating the consideration of other factors that are commonly included in recidivism risk assessments, such as offenders' living situations, attitudes, and their current relationships with family and peers* (Andrews & Bonta, 1990). For this reason, a growing number of researchers, policy-makers and judges have argued for the

Report Highlights...

The forecast model simulates the flow of offenders through the state's correctional system over a ten-year forecast horizon and produces monthly projections of key inmate groups.

The model relies on three primary assumptions:

(1) The number of prison admissions will tend to increase from year to year.

(2) Offenders whose crimes fall into the same offense category will tend to be treated by the justice system in similar ways.

(3) The underlying processes which drive prison population growth remain relatively stable during the next 10 years.

If these assumptions do not hold true, then the forecast projections will become less accurate.

use of information from recidivism risk assessments during sentencing. Sometimes described as "evidence-based sentencing," this front-end strategy is intended to provide judges, prosecutors and other actors involved in sentencing with additional sources of information about offenders (Hyatt, Bergstrom & Chanenson, 2011).

FORECAST METHODOLOGY

Technical Description of the Forecast Model

This section of the report provides a description of the simulation model and forecast assumptions used to produce the current 2014-2024 projections. Data sources, variable definitions, and calculations are also provided in Appendix I at the end of the report.

The forecast of the state correctional population was completed using the Wizard 2000 projection software. This computerized simulation model mimics the flow of offenders through the state's correctional system over a ten-year forecast horizon and produces monthly projections of key inmate groups. The simulation model utilizes a technique that is consistent with that of a stochastic entity simulation model. When a model is loaded with data, it will mimic the actual flow of cases through the correctional system.

In order for the simulation model to work to its full potential, information must be gathered describing all of the entries and exits from prison system during the previous year. This applies to all offenders sentenced to the DOC custody (i.e., prison commitments). Additional data must also be gathered describing the characteristics of the admission, confined, and release populations, parole hearing outcomes, and parole revocations. This information is then entered into the simulation model.

Forecast Model Assumptions and Modifications to the Forecast Model in 2014

The model relies on several assumptions. First, it assumes that the number of admissions to prison system will tend to increase from year to year. This "growing admissions assumption" is accurate for almost all state correctional systems, including West Virginia, but it means that the forecast projections may become less accurate if growth in the number of prison admissions decreases sharply. In order to account for a recent decline in the rate of admissions growth, the 2014 forecast model was modified so that assumptions about future admissions growth fit more closely with the lower growth rates observed since 2012.

Second, the forecast model also employs the assumption that offenders whose crimes fall into the same offense category are handled by the criminal justice system in a similar fashion (i.e., in relation to sentencing, time served, and release decisions). In our case, the 2014-2024 forecast model was modified so that assumptions about parole grant rates for each offense category better reflected the actual grant rates observed in 2013.

Finally, the forecast model also relies on the general assumption that the underlying processes associated with prison population growth will remain relatively unchanged over the course of the next 10 years. If these processes do change, then the projections may become less accurate. For this reason, the Office of Research and Strategic Planning (ORSP) generates new forecast projections every two years in order to adjust the model to account for any major changes that may occur form year to year. As will be described later in the report, the 2014 forecast model continues to be

monitored for its accuracy. Monthly changes in the actual prison population have been compared to the forecast results from January 2014 through November 2015. The forecasted projections continue to predict the actual population with close accuracy. Our discussion of the results begins with a description of recent trends in DOC commitments and releases.

RESULTS

Trends in Commitments and Releases

Table 1 displays the annual change in commitments to Division of Corrections (DOC) custody between 2003 and 2013. It shows that the total number of commitments grew steadily between 2003 and 2011 at an average annual rate of about 5.4%. However, the total number of commitments has since declined slightly from 3,492 in 2011 to 3,438 in 2013. This shift appears to be driven by decreases in the number of new Anthony Center prisoners and diagnostic commitments since 2001, as well as a decrease in the growth in the number of new felons committed to Division of Corrections facilities. The exception to this trend is the number of commitments for parole violators, which grew from 478 in 2011 to 552 in 2013, an increase of about 15.4%. The number of new commitments for parole violators in 2013 was the highest observed during this time period. This trend continues to increase due to parole violations that began in 2005. Prior to 2005, parole violators accounted for about 10% or less of

Report Highlights...

Prison commitments grew at an average rate of 5.4% per year between 2003 and 2011. The number of commitments decreased slightly in 2012, but then increased again in 2013.

Increasing numbers of commitments due to parole revocations has contributed substantially to the continued growth in prison commitments.

In 2013, 552 parole violators were sent to prison, more than during any previous year.

The number of prisoners released each year has grown, increasing from 1,953 in 2004 to 3,254 in 2013.

The total number of parole decisions increased by 46% between 2012 and 2013, due primarily to a sharp drop in the number cases being delayed for further consideration.

Parole grant rates increased from 48.5% in 2012 to 56.9% in 2013. As a result, 1,059 more inmates were granted parole in 2013 than in 2012.

Table 1

Annual Change in Commitments to the Division of Corrections Custody, 2003-2013

						Annual Change	
Year	*New Felons*	*Anthony Center*	*Diagnostic*	*Parole Violators*	*Total*	*N*	*%*
2003	1,560	264	189	229	2,242	---	---
2004	1,846	267	167	225	2,468	+226	+ 10.1
2005	1,900	264	82	386	2,605	+137	+ 5.6
2006	2,106	230	103	426	2,830	+225	+ 8.6
2007	2,536	237	160	483	3,449	+619	+21.9
2008	2,237	195	150	539	3,151	-298	-8.6
2009	2,304	270	143	516	3,190	+39	+1.2
2010	2,369	236	170	509	3,284	+94	+2.9
2011	2,526	302	186	478	3,492	+208	+6.3
2012	2,505	265	133	504	3,407	-85	-2.4
2013	2,553	238	95	552	3,438	+31	+0.9

Table 2

Parole Decisions by Type and Year, 2008-2013

	Granted		Denied		Total		Further Consideration
Year	N	(%)	N	(%)	N	(%)	N
2008	1,376	(53.4)	1,199	(46.5)	2,575	(100.0)	957
2009	1,328	(52.3)	1,210	(47.6)	2,538	(100.0)	1,305
2010	1,336	(46.2)	1,554	(54.7)	2,838	(100.0)	1,199
2011	1,334	(47.0)	1,504	(52.9)	2,838	(100.0)	1,207
2012	1,477	(48.5)	1,564	(51.4)	3,041	(100.0)	1,414
2013	2,536	(56.9)	1,917	(43.0)	4,453	(100.0)	601

total commitments, but in subsequent years they consisted of 15-17% of commitments.

Table 2 describes the results of all parole decisions made since 2008. During the period between 2008 and 2012, about 1,300 to 1,400 prisoners were granted parole each year. Moreover, grant rates fluctuated between 46.2% and 53.4%. However, several significant changes occurred in 2013. First, the total number of parole decisions increased by 1,412 in 2013, an increase of about 46% over the previous year. Second, the grant rate also increased to 56.9%, resulting in 2,536 prisoners being granted parole. This is a difference of 1,059 prisoners from the previous year, resulting in a roughly 71% increase in the number of prisoners granted parole between 2012 and 2013.

Table 3 summarizes all releases from DOC custody between 2004 and 2013. During this period, the total number of prisoners released each year has increased steadily, along with the size of West Virginia's prison population, from 1,953 releases in 2004 to 3,737 releases in 2013. The only exceptions to this trend occurred in 2009 and 2012, when the number of releases decreased by about 2.9% and 3.1%, respectively. The largest increases in the rate of growth for releases occurred in 2007 (17.1% growth) and in 2013 (16.8% growth). Each year, about 50% of releases occurred as a result of prisoners being granted parole and roughly 30% of releases consisted of prisoners discharged after having served their entire sentences.

Description of Current DOC Admissions

Due to a lack of available prison beds, some offenders who are sentenced to prison serve part or all of their sentences in regional jails. While these offenders are counted as prison commitments because they were committed to DOC custody they are not counted as prison admissions until they are

Table 3

Annual Change in Releases from the Division of Corrections Custody, 2004-2013

							Annual Change	
Year	Discharge	Parole	Anthony Center	Diagnostic	Other	Total	N	%
2004	573	773	293	153	24	1,953	---	---
2005	658	1,048	251	180	20	2,157	+204	+10.4
2006	700	1,127	237	148	28	2,240	+83	+3.8
2007	750	1,437	223	184	29	2,623	+383	+17.1
2008	765	1,510	278	120	25	2,698	+75	+2.9
2009	875	1,345	237	138	25	2,620	-78	-2.9
2010	837	1,344	274	190	24	2,669	+49	+1.9
2011	921	1,479	283	194	35	2,912	+243	+9.1
2012	899	1,483	264	135	39	2,820	-92	-3.1
2013	897	1,917	287	152	41	3,294	+474	+16.8

Table 4

Inmates Admitted by Type of Offense and Year (%)

	2007	2008	2009	2010	2011	2012	2013	Difference 2012-13	Difference 2007-2013
Violent Offenses									
Murder	2.6	2.7	2.9	2.8	2.0	1.9	2.2	+0.3	-0.4
Sex Crimes	6.6	6.4	7.1	7.9	6.0	5.5	7.4	+1.9	+0.8
Robbery	5.8	5.8	5.1	6.1	5.6	5.1	4.1	-1.0	-1.7
Assault	8.7	8.1	8.9	10.6	8.6	8.4	6.2	-2.2	-2.5
Subtotal	23.7	23.0	24.0	27.4	22.2	20.9	19.9	-1.0	-3.8
Non-Violent Offenses									
Burglary	15.1	15.3	14.4	15.0	16.0	15.4	16.3	+0.9	+1.2
Property	25.3	26.1	24.7	20.7	25.1	24.8	24.8	+0.0	-0.5
Drug	21.7	21.1	22.9	21.9	22.6	21.8	23.1	+1.3	+1.4
DUI	5.5	5.0	4.5	5.1	4.2	3.8	3.6	-0.2	-1.9
Other	8.8	9.5	9.6	9.7	9.8	12.8	11.9	-0.9	+3.1
Subtotal	76.4	77.0	76.1	72.4	77.7	78.6	79.7	+1.1	+3.3

physically housed in DOC facilities. This section describe offenders who have been admitted into DOC facilities.

Table 4 presents the percentage of offenders committed to DOC facilities for each of nine major offense categories between 2007 and 2013. It shows that most admissions were for nonviolent offenses, and that the percentage of admissions for nonviolent offenses has been increasing in recent years. In 2013, 79.7% of all admissions were for nonviolent offenses, compared to 78.6% in 2012, 77.7% in 2011, and 72.4% in 2010. Likewise, the percentage of admissions for burglary (16.3%) and drug offenses (23.1%) in 2013 was higher than during any of the previous six years, while the percentage of admissions for robbery (4.1%) and assault (6.2%) was the lowest observed since 2007. While the percentage of 2013 admissions for murder (2.2%) and sex crimes (7.4%) was greater than that observed in 2012; neither were the highest reported percentages in the past 7 years. In addition, admissions for DUIs also decreased to the lowest rate (3.6%) observed since 2007.

Table 5 displays the average maximum sentence lengths (in months) by offense type and admission year. Between 2007 and 2013 the average maximum sentence decreased for every crime category except for murder, where average maximum sentence lengths increased by about 6.5 months. Similarly, the maximum sentence increased by about 0.9 months for DUI. The decrease in average maximum sentence length between 2007 and 2013 was greatest for

Report Highlights...

In 2013, about 80% of all prison admissions were for non-violent offenses, and this percentage has increased every year since 2010.

The most common offenses committed by offenders admitted to prison in 2013 were property crimes (24.8%), drug offenses (23.1%) and burglary (16.3%).

The percentage of admissions due to drug offenses and burglary in 2013 was higher than any year since 2007.

Between 2007 and 2013, the average maximum sentence decreased for every crime category except murder and DUI.

The decrease in average sentence length was greatest for greatest for offenders admitted for robbery (-59.6 months), sex crimes (-47.3 months) and burglary (-47.3 months).

Table 5

Average Maximum Sentence Length (in Months) by Offense Type and Admission Year

	2007	2008	2009	2010	2011	2012	2013	Difference 2012-13	Difference 2007-2013
Murder	224.8	280.4	257.0	275.4	244.8	219.9	231.3	+11.4	+6.5
Sex Crimes	197.8	237.9	202.9	225.1	160.0	179.2	150.5	-28.7	-47.3
Robbery	242.0	241.8	236.7	222.4	220.8	147.7	182.4	+34.7	-59.6
Assault	91.8	94.4	87.5	87.4	79.4	87.3	76.7	-10.6	-15.1
Burglary	172.4	192.6	173.7	171.4	135.5	118.2	125.1	+6.9	-47.3
Property	130.8	139.2	140.0	133.0	106.7	106.1	98.8	-7.3	-32.0
Drug	126.0	136.7	131.2	120.8	114.7	102.2	102.7	+0.5	-23.3
DUI	39.3	38.8	39.6	39.3	44.2	42.8	40.2	-2.6	+0.9
Other	62.5	62.7	62.3	61.1	59.4	70.8	55.5	-15.3	-6.9

offenders admitted for robbery (-59.6 months), sex crimes (-47.3 months), and burglary (-47.3 months).

As can be seen in Table 6, the prison population in West Virginia grew steadily between 2002 and 2012 at an average rate of 4.8% per year. However, the total of number of prisoners in DOC custody decreased for the first time in the state's history in 2013, falling to 6,833 from a high of 7,085 the previous year. As suggested above, this shift is likely due to a significant increase in the number prisoners granted parole during 2013 as well as a decline in the growth rate for new commitments to DOC facilities. Together, these two recent changes have contributed to a decrease in the total number of prisoners housed in DOC facilities between the end of 2012 and 2013. In 2014, the total number of prisoners increased slightly to 6,865. The question of whether this trend of slower prison population growth will continue in future years is addressed in the next section.

Correctional Population Forecast Projections

In Figure 2, the year-end prison population projections for the 2014 forecast model are presented, and compared to projections reported in the 2012 forecast. In addition, the year-end prison population numbers for the years 2003-2013 are also presented. As shown in Figure 1, a noticeable change in the rate of prison population growth occurred in 2013, when the total prison population declined for the first time in more than 30 years. It is at this point that the DOC population numbers began to diverge from the projections generated by the 2012 forecast. The 2012 forecast model projected the WV correctional population to be 7,541 at the end of 2013; however, only 6,833 prisoners were in DOC custody at year's end. Therefore, the 2014 correctional population forecast model makes a number of adjustments to account for these changes observed in 2013.

The 2014 model projects that the correctional population in West Virginia will begin to grow again, but that this growth will occur at an annual rate of about 1.8%. This annual rate of growth is much lower than the 4.8% average annual growth observed between 2002 and 2013. This is in part due to the actual population decreases observed in 2014 and reported above (see Table 6). Over time, adjustments to the model based on 2013 and 2014 data trends leads to substantial differences in the projections compared to the 2012 forecast. For example, while the 2012 forecast projected that the correctional population would reach

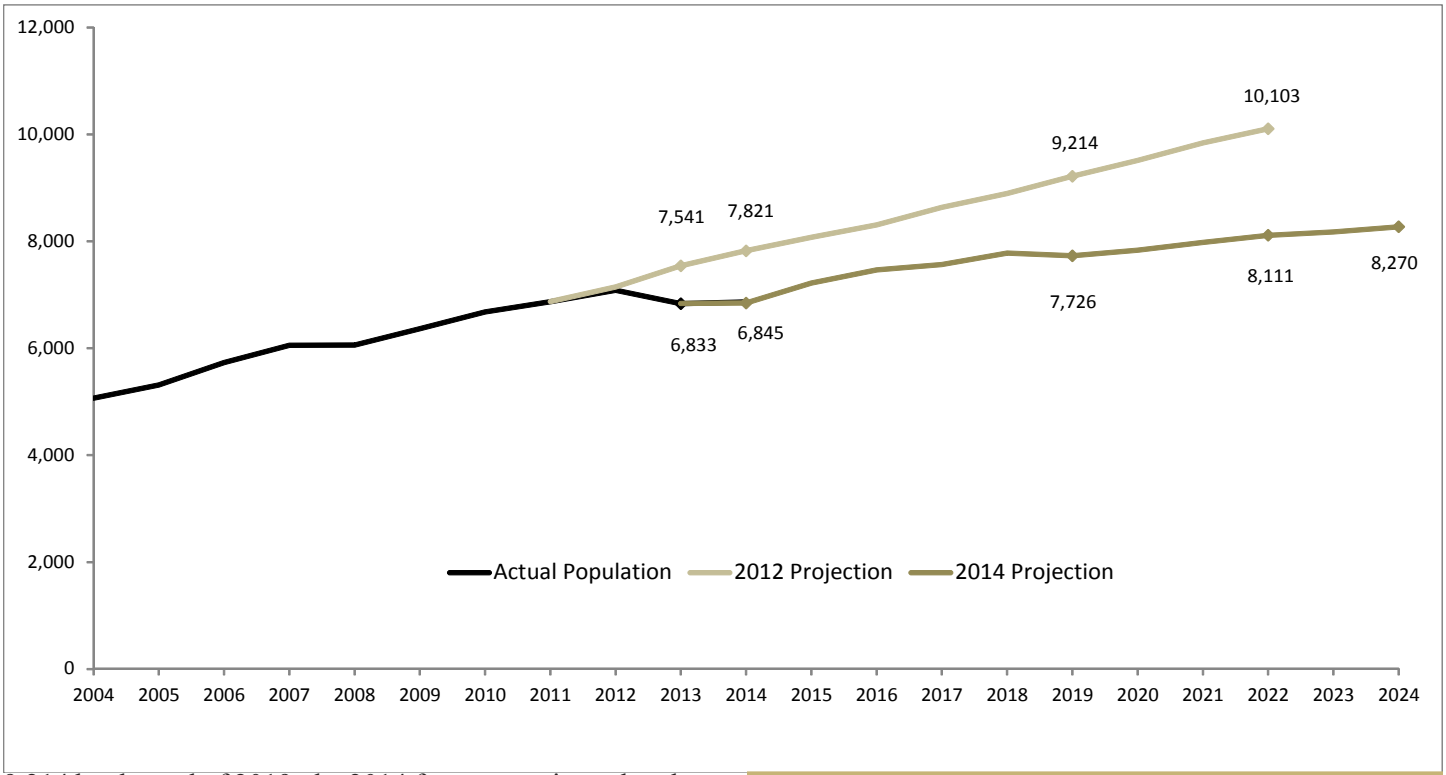
Table 6

Confined End-of-Year Population, 2002-2014

		Annual Change	
Year	Population	N	%
2002	4,544	+329	+7.8
2003	4,758	+214	+4.7
2004	5,067	+309	+6.4
2005	5,312	+245	+4.8
2006	5,733	+421	+7.9
2007	6,056	+323	+5.6
2008	6,059	+3	+0.05
2009	6,367	+308	+5.1
2010	6,681	+314	+4.9
2011	6,870	+189	+2.8
2012	7,085	+215	+3.1
2013	6,833	-252	-3.5
2014	6,865	+32	+0.4

Figure 2

Actual and Projected Correctional Population, 2004-2024



9,214 by the end of 2019, the 2014 forecast projects that the correctional population will be 7,727 by the end of 2019. The difference in projections is even greater after 10 years in 2022, when the 2012 forecast projects that correctional population will reach 10,103 prisoners compared to the 8,111 prisoners projected by the 2014 model. While the 2012 forecast did not produce projections for the years after 2022, the 2014 projects that prison population will continue to grow slowly, and reach 8,270 prisoners by the end of 2024.

Table 7 describes the projected characteristics of the state's correctional population over the course of the next 10 years. It shows that general population inmates will continue to make up the vast majority of prison population. Consistent with the previous projections made in the 2012 forecast, the percentage of inmates who are female is expected to increase slightly, growing from 12.6% of the correctional population in 2014 to 16.2% of the population in 2024. This means that female correctional population is projected to grow from 846 in 2014 to 1,311 in 2024.

In regards to the types of offenses committed by prisoners, the 2014 forecast projects that the percentage of prisoners incarcerated for person offenses will decrease significantly from 44.4% in 2014 to 34.1% in 2019,

Report Highlights...

In 2013, the total of number of prisoners in DOC custody decreased for the first time in the state's history, falling to 6,833 from a high of 7,085 the previous year.

In 2014, the prison population began to grow again, and increased to 6,865 by the end of the year.

Based on the current forecast, the prison population is expected to continue to grow at an average annual rate of 1.8% over the course of the next 10 years.

The growth rate of 1.8% is down from 4.1% estimated by the 2012 correctional population forecast.

The current forecast projects that the prison population will reach 8,270 inmates by 2024.

The projections generated by 2014 forecast model remain highly accurate, with estimates falling within 1.1% of the actual prison population on average through November 2015.

Table 7

Characteristics of the Forecasted Population, 2014-2024

	2014		2019		2024	
	N	*%*	*N*	*%*	*N*	*%*
Population Type						
General Population	6,706	97.9	7,575	98.1	8,101	97.9
Anthony Center	126	1.8	136	1.8	151	1.8
Diagnostic	13	0.1	16	0.1	18	0.1
Total	6,845	100.0	7,726	100.0	8,270	100.0
Gender						
Male	5,860	87.4	6,346	83.8	6,790	83.8
Female	846	12.6	1,228	16.2	1,311	16.2
Total	6,706[A]	100.0	7,574	100.0	8,101	100.0
Broad Offense Category						
Person (Violent)	2,668	45.4	2,275	34.1	2,568	35.1
Property	1,788	30.4	2,572	38.5	2,786	38.1
Drug	837	14.2	1,159	17.3	1,271	17.4
Public Order	577	9.8	664	9.9	694	9.4
Total	5,870[B]	100.0	6,670	100.0	7,319	100.0

Note: [A] Anthony Center and diagnostic inmates are not included in gender calculations. [B] Prisoners serving life sentences, Anthony Center inmates and diagnostic inmates are not included in offense category projections.

before increasing slightly to 35.1% by the end of 2024. Conversely, the percentage of prisoners incarcerated for property and drug offenses is expected to increase over the next 10 years, rising from 31.1% to 38.1% between 2014 and 2024 for property crimes, and from 14.5% to 17.4% for drug crimes. The percentage of prisoners serving time for public order offenses is projected to stay relatively stable at approximately 10%.

Forecast Performance Evaluation, 2014-2015

The ORSP continues to monitor the performance of the 2014 correctional population forecast model throughout the year 2015. This is done by comparing the monthly prison population projections generated by the model to the actual prison population totals that are observed in West Virginia. Between January and November of 2015, forecast estimates have been within 1.1%, on average, of the actual prison population at the end of each month. The error rate for monthly projections has ranged from a high of 2.3% in August of 2015 to a low of 0.09% at the end of October 2015. Thus, 2015 data indicate that projections generated

Report Highlights...

The current forecast projects that the proportion of inmates who are female will increase from 12.6% in 2014 to 16.2% in 2024.

The forecast projects that the percentage of prisoners incarcerated for person offenses will decrease significantly over the next 10 years, falling from 44.4% to 35.1%.

In contrast, the percentage of prisoners incarcerated for property offenses is expected to increase from 30.4% to 38.1%.

The percentage of drug offenders is expected to grow from 14.2% to 17.4%

Table 8

Comparison of Offense Severity and Criminal History Scores for DOC Commitments and DRC Admissions in 2013

	Mean	*S.D.*	*N*	*Mean*	*S.D.*	*N*	*t*	*df*
	2013 DOC Commitments			**2013 DRC Admissions**				
Offense Severity Score	182.29	113.09	3,439	150.25	111.77	1,423	9.01***	4,860
Criminal History Score	4.50	1.83	2,762	3.01	1.99	1,521	24.57***	4,281

Note: Risk assessment data was not available for 683 (19.8%) of DOC commitments or for 246 (13.9%) of direct-sentence DRC admissions in 2013.

by the 2014 forecast model remain highly accurate.

The enduring accuracy of the 2014 forecast projections suggests that the model's assumptions remain valid and that any changes to policies or prison procedures that occurred after December of 2014 have not had a significant impact on prison population growth. In addition, it also important to point out that the number of prisoners continues to grow during most months at a rate that is nearly identical to what was observed in 2014. In 2014, the average monthly growth rate was 0.189% (or about 12.7 additional prisoners per month) compared to an average monthly growth rate of about 0.182% (or about 12.2 additional prisoners per month) in 2015.

Assessing the Impact of Future Correctional Population Reductions: Two Scenarios for Diverting Less Serious Offenders to Community Supervision

Given the increased focus on strategies to reduce the prison population, this report seeks to conduct a new comparative analysis to ascertain the impact of two diversion scenarios on the forecast projection. Using our knowledge of both clients presently supervised in day report centers and the current prison population, we developed scenarios to identify the "overlap" among each population. That is, the proportion of offenders currently serving time in prison who are statistically "less serious" than those serving time in the community. This overlap, or "less serious" inmate population, represents a proportion of the population that could conceivably be diverted from a more expensive, custodial sentence.

In this section, correctional population projections based on two alternative forecast scenarios are presented, in which subgroups of offenders with less severe *current offenses* and *criminal histories* are removed from the 2013 commitments to DOC facilities. This procedure permits us to simulate the

Figure 3: Offense Severity Scores for Selected Offenses

Low Severity Score (1-100):

- DUI, third offense (1)
- Destruction of Property (11)
- Possession of a Controlled Substance (29)
- Transportation of a Controlled Substance (30)
- Poss. Of Controlled Subst. w/ intent to sell (36)
- DUI, Fleeing From Officer (69)

Medium Severity Score (101-200):

- Counterfeiting (114)
- Tax Evasion (136)
- Receiving or Transferring Stolen Vehicle (152)
- Obtaining Money by False Pretenses (170)
- Forgery of Credit Card (179)

High Severity Score (201-300):

- Forgery (208)
- Grand Larceny (230)
- Malicious Assault (254)
- Domestic Violence, 3rd Offense (255)
- First Degree Arson (275)

Very High Severity Score (301-344):

- First Degree Sexual Assault (309)
- First Degree Robbery (315)
- Kidnapping (328)
- DUI With Death (333)
- Second Degree Murder (338)
- First Degree Murder (344)

Table 9

Comparison of Current Offenses and Criminal Histories Across Offender Populations

	Diversion Group 1 (More Conservative Scenario, N =259)		Diversion Group 2 (Less Conservative Scenario, N =728)		2013 DOC Commitments (N = 3,443)		2013 DRC Admissions (Direct-Sentence Only, N = 1,767)	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Offense Type								
Murder	0	0.0	0	0.0	78	2.3	0	0.0
Sex Crimes	0	0.0	0	0.0	229	6.7	11	0.8
Robbery	0	0.0	0	0.0	186	5.4	8	0.5
Assault	0	0.0	0	0.0	216	6.3	357	24.5
Burglary	0	0.0	0	0.0	563	16.4	102	7.0
Property	28	10.8	91	12.5	811	23.6	409	28.0
Drug	173	66.8	437	60.1	797	23.1	279	19.1
DUI	7	2.7	67	9.2	126	3.7	172	11.8
Other	51	19.7	133	18.2	437	12.7	122	8.9
Total	259	100.0	728	100.0	3,443	100.0	1,460	100.0
Offense Severity Score								
Low (1-100)	229	88.4	633	87.0	1,172	34.1	585	33.1
Medium (101-200)	30	11.6	95	13.0	286	8.2	89	6.3
High (201-300)	0	0.0	0	0.0	1,418	41.2	741	52.1
Very High (301-344)	0	0.0	0	0.0	567	16.5	8	0.6
Total	259	100.0	728	100.0	3,443	100.0	1,423	100.0
Criminal History Score								
Very Low (0-1)	60	23.6	60	8.3	224	8.2	427	28.1
Low (2-3)	199	76.4	199	27.2	518	18.7	431	28.3
Medium (4-5)	0	0.0	469	64.5	1,078	39.0	481	27.2
High (6-7)	0	0.0	0	0.0	905	32.7	176	10.0
Very High (8)	0	0.0	0	0.0	37	1.3	6	0.3
Total	259	100.0	728	100.0	2,762[A]	100.0	1,521	100.0

Note: [A] Criminal History subsection scores from the LS/CMI risk and needs assessment were not available for 681 DOC commitments or for 246 offenders admitted to DRCs.

future growth of the correctional population—minus the prison inmates diverted due to less serious current offenses and criminal histories. This section begins by describing the procedures used for identifying potential candidates for diversion to alternative sanctions. Once identified, these candidates are removed from the annual commitments to DOC in the forecast model and modified projections are calculated. This is followed by a preliminary analysis of potential cost savings, assuming the diverted offenders are given alternative, community-based sentences in day report centers.

Identifying Likely Candidates for Community Supervision

In general, the two most important factors in sentencing decisions are the severity of the offenders' current offense and the nature of the offenders' criminal history (Spohn 2009). Consequently, these two criteria are used to identify offenders committed to DOC facilities in 2013 that were statistically similar to or no different from offenders serving their sentence in a DRC. By emphasizing offenders' current offenses and criminal histories, this approach makes it possible to identify likely candidates for diversion using

Table 10

Comparison of Mean Offense Severity and Criminal History Scores Across Offender Populations

	Mean	*S.D.*	*N*	*Mean*	*S.D.*	*N*	*t*	*df*
	Diversion Group 1			**Other 2013 DOC Commitments**				
Offense Severity	52.08	40.47	259	191.81	110.58	3,180	20.22***	3,437
Criminal History	2.08	0.84	259	4.74	1.72	2,503	24.55***	2,760
	Diversion Group 1			**2013 DRC Admissions**				
Offense Severity	52.08	40.47	259	150.25	111.77	1,423	13.82***	1,680
Criminal History	2.08	0.84	259	3.01	1.99	1,521	7.39***	1,778
	Diversion Group 2			**Other 2013 DOC Commitments**				
Offense Rank	50.34	42.66	728	216.45	99.47	2,711	43.97***	3,437
Criminal History	3.69	1.34	728	4.78	1.89	2,034	14.36***	2,760
	Diversion Group 2			**2013 DRC Admissions**				
Offense Rank	50.34	42.66	728	150.25	111.7	1,423	23.02***	2,149
Criminal History	3.69	1.34	728	3.01	1.99	1,521	8.29***	2,247

Note: Risk assessment data was not available for 683 (19.8%) of DOC commitments or for 246 (13.9%) of direct-sentence DRC admissions in 2013.

information readily available and used by judges to make sentencing decisions.

Current "offense severity" is measured using a ranking developed by the West Virginia Department of Corrections. This ranking categorizes common offenses in West Virginia into categories that are consistent with the National Incident-Based Reporting System (NIBRS), and then ranks the categories based on the consideration of the average minimum and maximum sentences for offenses included in that category. The result is an offense severity ranking that ranges from 1 to 344, with 1 indicating the most severe offense (first degree murder) and 344 indicating the least severe offense (for example, driving under the influence, third offense). To facilitate interpretation, this ranking is reversed so that higher scores indicate more severe offenses.

Offender "criminal history" is based on the criminal history subsection of the LS/CMI risk assessment tool. The LS/CMI criminal history domain captures an array of factors denoting the nature and extent of a person's previous interactions with both the criminal and juvenile justice systems. These factors includes information about both the number and severity of each offenders' prior offenses as well as prior experiences with incarceration, juvenile arrests and

Report Highlights...

In 2013, 3,443 offenders were sentenced to prison while 1,767 were sentenced to community supervision by DRCs.

As expected, offenders sentenced to prison have higher offense severity and criminal history scores than offenders sent to DRCs.

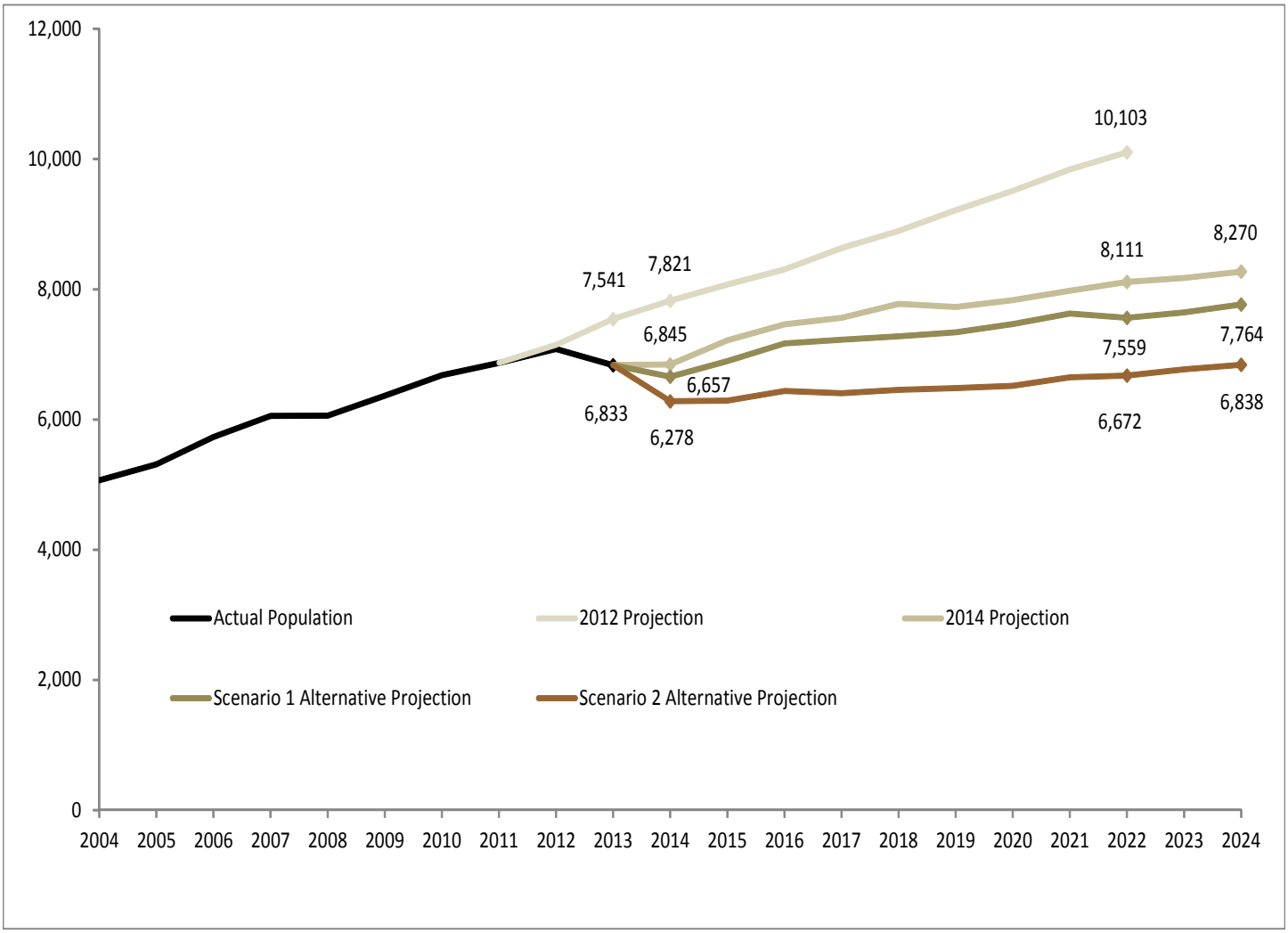
However, about 7.5% to 20.1% of DOC commitments have scores that are similar to or better than those of offenders sent to DRCs.

These offenders would be likely to be good candidates for diversion to community supervision.

In both the more and less conservative diversion scenarios, the likely candidates for diversion are all nonviolent offenders. Most candidates for diversion committed either drug or property offenses.

Figure 4

Actual and Projected Correctional Population, 2004-2024



detention, institutional misconduct, and any violations of community supervision. Research has shown these factors to be strong predictors of a person's future recidivism (Andrews & Bonta, 2010: 58-60). This information is used to calculate a score that ranges from 0 to 8, with higher scores indicating a more serious criminal history.

Table 8 presents the results of two independent samples t-tests which compare the offense severity rankings and criminal history scores, respectively, for offenders committed to DOC facilities and DRC community supervision in 2013. It shows that offenders sentenced to DOC facilities, as expected, have an average offense severity score of 182.29, which is greater than the average score of 150.25 for DRC admissions. The t-test statistic indicates that this difference is statistically significant at the 99.9% confidence level ($t = 9.01$; $p < 0.001$) and therefore not likely to be due to chance. Likewise, the average criminal history score for DOC commitments is 4.5, which is higher than the average score of 3.01 for DRC admissions. The difference between these scores is also statistically significant at the 99.9% confidence level ($t = 24.57$; $p < 0.001$).

Thus, Table 8 demonstrates that offenders who were sentenced to prison tended to be more serious than those sentenced to DRCs. However, considerable variation exists among both DOC commitments *and* DRC admissions in regards to both offense severity and criminal history scores (as indicated by the high standard deviations). Moreover, many offenders in both populations have scores that are relatively low in terms of "seriousness." About 39.8% of DOC commitments have offense severity scores that are below the mean for DRC admissions. Likewise, about 26.9% have criminal history scores that are below the DRC mean. Furthermore, 7.8% of DOC commitments (259 inmates) have both offense severity and criminal history

Table 11

Projected Cost Savings for Two Diversion Scenarios

	Scenario 1 (More Conservative)	*Scenario 2 (Less Conservative)*
Offenders Diverted in 2013	259	728
Offenders Diverted, 2014-2024	2,856	8,027
Bed-Years Saved, 2014-2024	4,335	13,176
Reduction in Prison Costs, 2014-2024 (total bed-years x $28,196.25 per year)	$122,230,743.75	$371,513,790.00
Cost of DRC Supervision for Diverted Offenders, 2014-2024 (total bed-years x $7,263.50 per year)	$31,487,272.50	$95,703,876.00
Total Cost Savings, 2014-2024 (prison cost savings - additional DRC supervision costs)	$90,743,471.25	$275,809,914.00
Average Total Cost Savings Per Year	$8,249,406.48	$25,073,628.55

Note: Cost calculations reflect the average total cost of housing an inmate per year.

scores that are below the DRC mean. *This suggests that while sentencing processes in West Virginia generally did a good job of sorting offenders, a modest proportion of offenders committed to DOC facilities in 2013 were statistically less serious than the average DRC admission during that year.*

The above analysis identified two subpopulations of offenders committed to DOC custody in 2013 who may represent good candidates for diversion to community supervision. First, we employed a more conservative approach, and identified 259 offenders committed to DOC facilities (or about 7.8% of all DOC commitments) who had current offense and criminal history scores *lower* than the DRC mean. Thus, all of the offenders in this group are statistically less serious than the average offender already serving a sentence in a DRC. Second, we also identified an additional 469 offenders who had an offense severity score below the DRC mean, but had a criminal history score considered by the LS/CMI to be "medium" or below (i.e., less than 5 on a scale of 0 to 8). As a result, this approach identified a total of 728 offenders [that is, 259 (below mean for current offense *and* criminal history) + 469 (below mean current offense and "medium or below" on criminal history)] as good candidates for diversion to the community. This is a less conservative estimate than the first scenario.

In Table 9, we compare the current offenses and criminal histories of the inmates in both diversion groups to those of offenders in greater detail. First of all, neither diversion group contains any inmates who committed violent offenses or burglaries. Most of the inmates in both diversion groups are drug offenders, with the remainder having committed either property offenses or DUI. The primary difference between the two diversion groups an additional 250 drug offenders with less serious criminal histories are included in the less conservative group.

Table 9 also depicts important differences in regards to current offense type, when comparing DOC commitments to DRC admissions. While property and drug offenders comprise nearly 50% of both offender populations, DRC admissions contain no offenders who committed murder and very few committed sex crimes or robbery. However, DRC admissions do contain a much larger proportion of offenders who committed assault. About 24.5% of DRC

admissions were sentenced to the DRC as the result of an assault, compared to only 6.5% of prison commitments. Most of the offenders sentenced to DRCs for crimes in the assault category had committed offenses related to domestic violence. Another significant different between the DOC and DRC populations concerns the sentencing of drug offenders. Drug offenders made up a slightly higher proportion of DOC commitments than DRC admissions (23.1% compared 19.1%), but in absolute terms, there were more than twice as many drug offenders who were sent to prison rather than to DRCs. This is somewhat surprising given that the majority of services provided by DRCs are focused on substance abuse treatment.

In regards to the distribution of offense severity scores, Table 9 shows that scores tended to be clustered in either the low or high categories for both DOC commitments and DRC admissions. This is due to the fact these categories contain most of the drug offenses and more serious property crimes respectively (see Figure 3). However, for DRC admissions this also reflects the high proportion of assaults, which tend to fall into the high category as well. As for criminal history scores, Table 9 shows that while a much greater proportion of DOC commitments fell into the medium and high categories, only about 1.0% fell into the very high category. Furthermore, it is important to note that about 8% of prison commitments scored in the "very low" risk category and another 18% scored as "low" risk on criminal history.

Table 8 presents the results of independent samples t-tests which compare the offenders in the diversion groups to other DOC commitments and to offenders who were sentenced to DRCs. As expected, it shows that the offenders in both diversion groups had mean criminal history and offense severity scores substantially lower than other prison inmates, and that these differences are all large enough to be considered statistically significant. However, the offense severity scores for the offenders in both diversion groups are also much lower than the average scores for direct-sentence DRC clients. In addition, the offenders in the more conservative diversion group have criminal history scores lower than the DRC average, while the less conservative group had scores greater than the DRC average (because they included a large number of offenders who scored in the medium category). All of these differences are statistically significant at the 99.9% confidence level.

Report Highlights...

Forecast results indicate that the diversion of less serious offenders to community supervision can save the state about 4,000 bed-years between 2014 and 2024, based on conservative estimates. Less conservative estimates yield about 13,000 bed-years saved, if front-end processes or sentencing decisions are modified.

Such savings of bed-years would result in an estimated total cost savings of between $90 and $275 million over 10 years, respectively.

Results illustrate that even modest progress on the "sorting issue" will yield substantial benefits in regards to prison crowding and cost savings.

Modified Population Projections and Projected Cost Savings

The previous analysis sought to identify the "overlap" in offenders serving time in DOC and DRC facilities in terms of "seriousness" so they could be extracted from the forecast model as a potential diversionary group. It is hoped that by doing so this project can draw attention to a segment of the prison population that may be diverted from the prison system without jeopardizing public safety; thereby, resulting in a cost-savings to the state and tax payers.

The 2012 and 2014 forecast model estimates as well as the comparison to the two diversion scenarios are presented in Table 4. The figure illustrates that both diversion scenarios result in substantial decreases in the rate of prison population growth. For instance, while 2012 forecast projected that the prison population will grow at a rate of about 4.8% per year, this rate decreases to about 1.1% per year under the "most conservative" scenario and 0.2% per year in the "less conservative" scenario. Over time, such decreases in the rate of prison population growth result in substantial reductions in the projected number of inmates housed by DOC in the future. In the more conservative scenario, the prison population increases to 7,559 by 2022, a number that is 552 less than the 8,111 projected by the most current forecast (i.e., 2014) and 2,544 less than the

10,103 inmates projected by the 2012 forecast. Likewise, the more conservative scenario projects by 2024, the prison population will be 7,764, which is 506 fewer inmates than the 8,270 predicted by the 2014 forecast model.

In total, the more conservative scenario projects that the diversion of less serious offenders will save 4,335 bed-years between 2014 and 2024 (see Table 11). Given an annual corrections cost of $28,196.25 per offender, this will reduce prison costs by roughly $122 million over the course of the next 11 years. The less conservative diversion scenario projects that the diversion of less serious offenders will produce even larger decreases in the state's prison population. Under this scenario, the forecast model predicts that the prison population will be 6,838 by 2024, a number that is 1,432 less than the current projection and 926 less than the estimates generated by the most conservative scenario. This results in a total savings of 13,176 bed-years and over $370 million in correctional costs between 2014 and 2024.

Of course, offenders diverted from prison still require supervision while in the community and are likely to need significant treatment and rehabilitative services. Therefore, Table 9 presents the costs of supervising and treating these offenders in DRCs and subtracts these costs from the savings associated with the reduction in demand for state prison beds. As shown in Table 9, even after accounting for the costs of community-based supervision and services, the diversion of less serious offenders still results in total cost savings of about $90 million in the more conservative diversion scenario and more than $275 million in the less conservative scenario.

Report Highlights...

Recent changes in parole procedures have reduced delays in parole eligibility and increased the parole grant rate.

Continued population growth is largely the product of a sustained increase in the number of new prison admissions and parole violators each year.

In West Virginia, the prison system continues to admit more prisoners than it releases each year, resulting in continued population growth.

DISCUSSION AND CONCLUSIONS

Policy Implications

This report presents correctional population forecast projections at a time of considerable change. Recent state initiatives have centered on several strategies for reducing the prison population. The results of this report indicates that some progress had been made at slowing population growth. The prison population decreased slightly between 2012 and 2013, and 2014 forecast projects a much lower rate of correctional population growth over the next 10 years. Yet, despite these achievements, the 2014 forecast still projects that WV correctional population will continue to grow, and is likely to reach unsustainable levels within the next 10 years.

Hence, this report supplemented these projections with additional analyses that were designed to show how forecast projections would change if "less serious" offenders currently serving time in the state's prisons were placed on community supervision instead. In short, the results demonstrate that a modest percentage of inmates currently in prison have committed less serious current offenses and have a less serious criminal history than offenders presently under supervision in state-administered day report centers. As a result, it can be expected that these offenders could be supervised in the community without jeopardizing public safety. This finding, along with others in the report, have a number of important implications for state planners and policy-makers.

First, this report provides some strong initial evidence that recent policy changes have had an effect on the back-end processes that govern prison releases. After the implementation of parole changes in 2013, the total number of prisoners released from states prisons due to parole increased by 29.2% compared to the previous year, and this change helped contribute to a 16.8% increase in the total number of prison releases. This was due in part to an increase in the parole grant rate from 49% in 2012 to 57% in 2013. It is important to note, however, that most of the additional releases occurred because of an increase in the total number of parole appeals receiving decisions as well as a sharp decrease in the number of cases being delayed for further consideration. While 1,414 cases were placed under further consideration in 2012, only 601 cases were delayed in 2013, a decrease of roughly 57%. This indicates

that DOC has been successful in its efforts to streamline parole processes.

In addition, the data also show that since 2007 the average sentence length has declined significantly for all offenses except for murder and DUI. These findings suggest that West Virginia has made important strides to address the back-end processes associated with prison growth, and these efforts appear to be the primary cause of the differences between the projections created by the 2012 and 2014 forecasts.

Nonetheless, the year-end population continued to increase between 2013 and 2014, and the current forecast projects that prison population growth will continue at average annual rate of 1.8%. This will result in a total prison population of more than 8,000 by 2024. Here, the results indicate that the ongoing growth of West Virginia's prison population is due in large part to front-end or sentencing processes, especially in relation to the sustained growth in the number of new prison commitments. Although the rate of growth in prison commitments has declined from the peak rates observed in the mid-2000s, the total number of new commitments in 2013 (3,438) still exceeded the total number of releases for that year (3,294). This gap is likely to widen in the future, and *as long the number of new prison commitments exceeds the number of releases then the prison population will continue to expand.*

The findings presented in this report point to several reasons why the number of new prison commitments has continued to increase in recent years. One important finding in this regard concerns the rapid growth in the number of commitments due to violations of parole. In the past 10 years the number of inmates being committed to prison as a result of parole violations has more than doubled, rising from 229 in 2003 to 552 in 2013. Likewise, there also has been significant growth in the number of new felons committed to prison each year, which grew from 1,560 in 2003 to 2,553 in 2013, an increase of roughly 63%. However, during this same period, crime rates in the state have largely been flat, suggesting that the prison population growth is due to changes in sentencing (i.e., towards more punitive sentences for the same crimes). This is further illustrated by the rate at which nonviolent offenders are sentenced to prison. These data show that nearly 80% of prison commitments in 2013 were sentenced to prison for nonviolent offenses and that the proportion of commitments due to nonviolent offenses has increased every year since 2010. The current forecast projections indicate that if existing front-end processes remain unchanged these trends will continue over the next 10 years.

Report Highlights...

The most important factor contributing to the growth in prison commitments is the increase in the number of commitments due to parole violations.

In the past 10 years, the number of inmates committed to prison due to parole violations has more than doubled, rising from 229 in 2003 to 552 in 2013.

The number of incarcerated for nonviolent offenses has been increasing, rising from 76.4% in 2007 to 79.7% in 2013. The forecast projects that this trend will continue over the next 10 years.

While the state has made progress largely through "back-end" system changes (i.e., parole, correctional treatment, graduated sanctions, and so forth), front-end processes fueling new prison commitments must be addressed in order to reduce the prison population in the state.

The forecast scenarios presented in this report built upon this knowledge by quantifying the proportion of prison commitments that might be safely supervised in the community. *The analyses indicate that about 7.5% of prison commitments in 2013 (or 259 offenders) had both offenses and criminal histories that were less severe than the average offender who was sentenced to receive community supervision by a day report center during the same year.* In addition, since there is evidence to suggest that West Virginia has a relatively low risk community corrections population compared to national norms (Davidson, Haas, Spence & Arnold, 2015), we also identified second diversion group using a slightly less conservative set of criteria. According to these criteria, an estimated 20.1% of prison commitments could be placed under DRC supervision without a significant increase in the threat to the community. Taken together, these findings indicate that there is some degree of overlap

between the two populations, and between 7.0 - 20.0% of the current prison population could be supervised in less costly community settings.

The diversion of these less severe offenders into the custody of DRCs would have a substantial impact on the future growth of the prison population. *Based on the more conservative scenario, the diversion of just 7.5% of new prison commitments would result in an estimated prison population reduction of more than 4,000 bed-years over the course of 10 years and a total cost savings of roughly $90 million. The diversion of about 20% of commitments based on the less conservative scenario produces and even greater effect. It would be expected to save more than 14,000 bed years and more than $275 million dollars over 10 years.* These cost savings figures account for the additional cost of community supervision for diverted offenders, and in both scenarios, only nonviolent offenders were considered eligible to be candidates for diversion. As a result, this report suggests that even modest improvements in the ability of judges and others to sort less dangerous offenders into community corrections programs would yield substantial fiscal benefits for the state.

Furthermore, it should be noted that improvements in front-end sorting processes would also be likely to have other secondary benefits as well. Research indicates that rehabilitative treatment is more effective when provided in community (Andrews & Bonta, 2010: 359), and that less serious offenders who are inappropriately sentenced to prison are more likely to reoffend after release (Lowenkamp, Pealer, Smith & Latessa, 2006). Thus, it is likely that diversion of less serious offenders would also produce reductions in recidivism that would likely have additional impacts on the demand for jail-beds in the future.

Recommendations for Achieving Additional Prison Population Reductions in West Virginia

Based on these forecast results, several recommendations can be made or achieving greater reductions in correctional population growth in West Virginia. First, this report suggests judges and other actors involved in sentencing should provide greater scrutiny to those cases that could potentially be handled in the community. The results of the alternative forecast scenarios indicate that even if only a small percentage of prison commitments were placed under community supervision, then the state could reap substantial benefits in terms of cost savings and reductions in prison crowding. These findings also highlight the importance of fully utilizing the state's community supervision resources. Perhaps more can be done to ensure that community corrections programs are used to provide an alternative to incarceration for high-risk felons. In this regard, the findings of this report compliment the recommendations of the state's justice reinvestment work group, which suggests that the state should seek to increase the potential of DRCs to provide rehabilitative treatment to offenders who have a high risk of recidivism (Grasso, 2013).

Second, the results from alternative forecast scenarios, along with recent experiences of Virginia, Pennsylvania and Missouri (Ostrom, Kleiman, and Cheeseman, 2002; Hyatt, Bergstrom & Chanenson, 2011), suggest that improvements on the "sorting issue" could be achieved through the use of offender risk and needs by judges prior to sentencing. This would enhance the ability of judges and others to tailor sentencing options to meet offender needs and the level of supervision and treatment they should receive. This would likely contribute to a reduction in the number of offenders being sent to secure confinement. Over the past

Report Highlights...

Judges can reduce the rate of prison population growth and enhance the effectiveness of correctional resources by giving scrutiny to cases that might potentially be handled in the community.

The efficiency of front-end sorting processes can be improved by having judges consider the results of offender risk and needs assessment prior to sentencing.

Probation and parole officers can curb prison population growth by making greater use alternative sanctions to punish offenders who violate their probation or parole.

DRCs can assist by avoiding the termination of high-risk clients, and keeping them in intensive treatment.

30 years, empirical studies have shown actuarial risk and needs assessments to be highly effective tools for helping correctional staff to make better decisions about how to manage and treat offenders. This report suggests that they can also serve to provide a valuable source of information prior to sentencing.

Finally, the findings of this report emphasize the use of alternative or graduated sanctions when responding to offenders who violate the terms their parole and probation—especially when these violations do not involve new crimes. Probation and parole violators account for a substantial proportion of new prison commitments in WV and any efforts to reduce reliance on incarceration as a means of punishing these violations is likely to have a significant effect on prison population growth. In addition, these findings also underscore the importance of DRC staff keeping troublesome clients involved their programs, and avoiding unnecessarily termination of clients. Spence and Haas (2014) found that clients who successfully completed their DRC programming were significantly less likely to recidivate over a 24-month period. Since revocation and program termination often results in offenders becoming incarcerated, it is important for community supervision agencies to remain mindful of the consequences of these decisions.

Limitations of the Findings and Opportunities for Further Research

The findings of this report reveal a number of important insights into ongoing trends in corrections and their implications for the state. However, since many of these findings pertain to future outcomes they are subject to some limitations. In regards to the forecast projections, it is important to remember that the forecast model relies on the assumption that the underlying processes that govern prison population growth will remain relatively unchanged. Consequently, if major changes to these processes do occur (for example, as the result of changes to sentencing or parole policies, or because of dramatic changes in the crime rate) then the forecast projections will become less accurate. The 2014 forecast projections should therefore be considered to be an estimate of what the prison population is likely to look if the status quo continues. Conversely, the two forecast scenarios provide sets of alternative estimates which describe what the population would look like if the status quo were changed in specific ways. In this regard, it is important to point out that only two criteria, offense severity and criminal history scores, were used to identify those prison commitments who might be diverted into the custody of day report centers and housed in the community. It is possible that there are other, unobserved factors which would preclude some of these offenders from being seriously considered for community supervision. Consequently, one should use caution when interpreting the estimates presented here of the proportion of prison commitments who could reasonably be diverted into community supervision because these estimates do not incorporate all of the factors that could potentially have an impact on sentencing decisions.

It should also be noted that cost estimates presented in this report reflect the average total cost of housing an inmate for one year, as reported by the West Virginia DOC. This approach is consistent with the one employed in recent cost-benefit analyses of West Virginia's correctional programs. It provides an accurate picture of the total fiscal impact that prisoners have on the state (Grasso, 2013). However, since these cost figures do not differentiate between the different types of costs associated with housing offenders (e.g., marginal versus fixed costs or administrative versus operational costs, and so forth), it is possible that the true cost savings associated with prison population reductions may be different from these estimates. For this reason, the cost saving presented in this report should be treated as an initial estimate of likely impact of prison population reductions that could be further improved by a more detailed cost-benefit analysis.

Future studies can build on this report in several ways. First, one possibility would be to further explore the utility of forecast methodology as a means of assessing the likely future impact of changes to criminal justice policy or correctional procedures. For instance, it would be worthwhile to know how the forecast projections would be impacted by other potential changes, such as decreases in the number of offenders sent to prison as result of probation or parole revocations or the shortening of prison sentences for certain offenses. Our findings that forecast projections can serve as a valuable tool for assessing the prospective impact of policy changes. As such, they can help to inform policy discussions and serve as a benchmark for assessing the effectiveness of initiatives designed to reduce the prison population.

A second avenue for future research involves a comparison of the characteristics of offenders sentenced to prison versus offenders sentenced to DRC supervision. Our results indicated that 7.5% of prison commitments were statistically "less serious" offenders than the average DRC client (i.e., in terms of current offense and crimnal history). One way of thinking about this percentage is that it provides a measure of the ability for sentencing processes to differentiate between more and less serious offenders. If this percentage increases from one year to the next, this would indicate that offenders were being sorted less effectively, and that the degree of overlap between the populations of DRC clients and prison inmates was growing. Conversely, if this percentage were to decrease, then it would indicate that offenders were being sorted more effectively (i.e., that is, diverting offenders from prison to the community). Thus, this report illustrates that researchers can compare the characteristics of populations of offenders receiving different sanctions in order to create performance measures that assess the severity of sorting problems in state justice systems.

Ultimately, our findings provide evidence that there is reason for the state to be optimistic about the potential for controlling correctional population growth in West Virginia. However, greater progress on "front-end" strategies related to sentencing must be achieved to further slow the recent trends in correctional population growth. While recent initiatives have already had a modest impact, they should not be seen as the last word in efforts to control the expansion of the correctional population in West Virginia.

APPENDIX I: DATA SOURCES AND CALCULATIONS

Data Sources

National Corrections Reporting Program "NCRP" (1998-2014). NCRP admission and release data describes the inmates who are entering and exiting from DOC facilities.

Automated Inmate Information Tracking System "Tracking" (1995-2014). Data obtained from this tracking system are used to describe the inmates who currently reside in the physical custody of DOC.

Inmate Management Information System "IMIS" (2009-2014). This is the current data system used by DOC. IMIS became effective in February 2005.

Commitments and Releases Log "CRL" (1998-2014). The data from the CRL are used to monitor the trends in commitments to and releases from DOC custody, as well as parole grant rates.

End-of-Month Log "EML" (1998-2014). The data contained in the EML includes the number of inmates in DOC custody at the end of each month.

WV Parole Board Activity Sheets (2002-2014). Various pieces of data are collected on the processing of all hearings considered by the parole board on a monthly basis.

Definitions and Calculations

Correctional Population. The 2012 correctional population forecast includes inmates sentenced to ACC, and diagnostic inmates. Also, included are offenders committed to the DOC that are housed in local or regional jails. These DOC inmate populations are included in the forecast projections and other calculations unless otherwise noted.

Anthony Correctional Center (ACC). Offenders sentenced to the ACC have a shorter length of stay compared to other DOC facilities. Young offenders are typically sentenced to 6 months to two years. Given that this population is handled differently from the general population of inmates, offenders sentenced to the ACC are separated from the general population in some analyses.

Diagnostics. These offenders can be sentenced to 60 days for a diagnostic evaluation.

Commitments. This term is used to describe the number of offenders that are ordered by the court to the custody of DOC. Commitments include all offenders sentenced to DOC custody, including inmates that may be housed in regional jails awaiting transfer to a DOC facility.

Admissions. This term refers to offenders sentenced to a DOC facility and physically entered into a DOC facility. Admissions differ from commitments in that they do not include inmates housed in regional jails pending transfer to

a DOC facility.

Violent Crimes. Violent crime is composed of four offense categories, which are also referred to as ID groups. These categories include: murder, sex crimes, robbery, and assault.

Nonviolent Crimes. Nonviolent crime consists of five offense categories, or ID groups including: burglary, property, drug, DUI, and "other". For greater detail on the types of offenses contained in each ID group, see Lester and Haas (2005), Appendices A-C.

Average Maximum Sentence. This is a conversion of the total maximum sentence given for all offenses into months. ACC and diagnostic populations are not included in the calculation of the average maximum sentence length. Maximum sentences that exceeded 1,000 months or more are excluded.

Mean Time Served. This is the average time served in a DOC facility, converted to months. It is calculated by subtracting the release date from the date of admission. This calculation does not include any time previously spent in jail, prior to admission into prison.

Mean Percent of Maximum Sentence Served (in months). This is calculated by taking the total time served in prison and dividing that by the total maximum sentence for all offenses. Cases with zero time served and equal to 250 months or greater are excluded from total maximum sentence calculation.

Parole Decision Rates. The parole decision rates are calculated by taking the total number of cases granted and dividing that by the total number of all decisions to either grant or deny parole. Cases placed on further consideration are not included.

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DMAPS AND DJCS ADMINISTRATION

Joseph Thornton, *Cabinet Secretary, DMAPS*
W. Richard Staton, *DJCS Director*
Jeffrey D. Estep, *DJCS Deputy Director*
Stephen D. Haas, Ph.D., *DJCS Deputy Director and ORSP Director*
Leslie Boggess, *Deputy Director*

1204 Kanawha Boulevard, East
Charleston, WV 25301
(304) 558-8814 phone
(304) 558-0391 fax
www.wvdcjs.com

The Division of Criminal Justice Services is the designated state criminal justice planning agency. The Division is responsible for fostering public safety in West Virginia by providing planning, system coordination, grant administration, training & technical assistance, monitoring, research, statistical services, and law enforcement training.

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